

1. (Amended) A fixing structure for fixing a pin with a link in a caterpillar, comprising:
- a fixing structure comprising a link, a pin inserted into a pin inserting bore provided on the link;
- the pin formed with a peripherally extending concave groove on an end portion of the pin; a peripheral rim of an opening of the pin inserting bore and the peripherally extending concave groove together form an annular space;
- an escape-preventing ring for limiting relative motion of the pin toward an off-opening side is fitted, further a hardness of the pin at a bottom surface of the groove is lowered than that of the pin at a portion with which the link is connected.

2. (Amended) The fixing structure of claim 1 wherein the hardness of the bottom surface of the peripherally extending concave groove is lowered by an annealing process.
3. (Amended) The fixing structure of claim 1 or 2, wherein the hardness of the bottom surface of the peripherally extending concave groove ranges from 30 to 45 as measured by a HRC scale and the hardness of the link engaging portion ranges from 50 to 65 as measured by a HRC scale.

Please add new claims 4 and 5.

4. (New) A fixing structure for fixing a pin with a link in a caterpillar, comprising:

a fixing structure comprising a link, a pin inserted into a pin inserting bore provided on the link;

the pin formed with a peripherally extending concave groove on an end portion of the pin;

a peripheral rim of an opening of the pin inserting bore and the peripherally extending concave groove together form an annular space ;

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an escape-preventing ring for limiting relative motion of the pin toward an off-opening side is fitted, further a hardness of the pin at a bottom surface of the groove is lowered than that of the pin at a portion with which the link is connected;

wherein the hardness of the bottom surface of the peripherally extending concave groove ranges from 30-45 as measured by a HRC scale.

5. (New) A fixing structure for fixing a pin with a link in a caterpillar, comprising:

a fixing structure comprising a link, a pin inserted into a pin inserting bore provided on the link;

the pin formed with a peripherally extending concave groove on an end portion of the pin;

a peripheral rim of an opening of the pin inserting bore and the peripherally extending concave groove together form an annular space ;

an escape-preventing ring for limiting relative motion of the pin toward an off-opening side

is fitted, further a hardness of the pin at a bottom surface of the groove is lowered than that of the pin at a portion with which the link is connected;

wherein the hardness of the link engaging portion ranges from 50 to 65 as measured by a HRC scale.
